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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,066	09/11/2003	Brian K. Smith	7463-17	6166

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EXAMINER	
DEAN, RAYMOND S	
ART UNIT	**PAPER NUMBER**
2618	

DATE MAILED: 06/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/660,066	SMITH ET AL.	
	Examiner	Art Unit	
	Raymond S. Dean	2618	

-- Th MAILING DATE of this communication appears on the cov r sheet with the correspond nce addr ss --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 - 18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 – 3 and 17 – 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Kaidar et al. (US 2004/0264413).

Regarding Claim 1, Kaidar teaches a method of receiving RF signal quality information comprising the steps of: at a first station, receiving a plurality of probe responses over a channel (Sections 0001, 0020, during passive scanning the station receives a plurality of probe responses); determining a current transmit rate of the probe responses (Sections 0001, 0020, in typical WLANs the stations synchronize with the probe responses such that information can be extracted, in order for said synchronization to take place there will be a determination of the transmit rate of the probe responses); synchronizing signal processing to the current transmit rate of the probe responses (Sections 0001, 0020, in typical WLANs the stations synchronize with the probe responses such that information can be extracted); and processing the probe

responses to determine at least one of a signal quality of the channel and a transmission protocol being used over the channel (Section 0020); wherein the probe responses are transmitted in reply to probe requests generated by a second station (Section 0001, passive scanning).

Regarding Claim 2, Kaidar teaches all of the claimed limitations recited in Claim 1. Kaidar further teaches the first station generating a probe request responsive to failing to receive a probe response for a predetermined period of time (Section 0001, in typical WLANs, if the station cannot detect probe responses said station will generate a probe request).

Regarding Claim 3, Kaidar teaches all of the claimed limitations recited in Claim 1. Kaidar further teaches the first station delaying a start of channel monitoring (Section 0001, in typical WLANs, the station can delay the channel monitoring in order for synchronization to occur).

Regarding Claim 17, Kaidar teaches a system for synchronizing a radio transceiver to a wireless local area network, comprising: a first receiver for receiving a plurality of probe responses over a channel in response to at least one probe request (Sections 0001, 0020, during passive scanning the station receives a plurality of probe responses); a processor in the radio transceiver programmed to: initiate a probe request if no probe responses are detected at the first receiver (Section 0001, in typical WLANs, if the station cannot detect probe responses said station will generate a probe request); stop further probe requests if probe responses in response to probe requests from another device are received at the radio receiver (Section 0001, in typical WLANs,

the station will halt transmission of probe requests when synchronization with the probe responses occurs); and synchronize to at least one among probe requests from another device and probe responses in response to probe requests from another device (Sections 0001, 0020, passive scanning, in typical WLANs the stations synchronize with the probe responses such that information can be extracted).

Regarding Claim 18, Kaidar teaches all of the claimed limitations recited in Claim 17. Kaidar further teaches wherein the plurality of probe responses are transmitted to the radio receiver from a wireless access point (Sections 0001, 0020).

3. Claims 4 – 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Bennett (US 6,980,535).

Regarding Claim 4, Bennett teaches a method for providing RF signal quality information comprising the steps of: from a probe request generator, monitoring a channel for probe requests being transmitted by a station (Column 8 lines 55 – 58, monitoring the access point comprises monitoring the probe requests and probe responses); determining a time period between successive probe request transmissions from the station (Column 8 lines 55 – 58, in order to determine when to send a probe request there will be a determination of a time period between successive probe requests during the monitoring period); and from the probe request generator, transmitting a series of probe requests having the determined time period between successive probe request transmissions (Column 8 lines 63 – 67); wherein

the series of probe requests signal an access point to transmit probe responses which are detectable by the station (Column 8 line 67, Column 9 lines 1 – 2).

Regarding Claim 5, Bennett teaches all of the claimed limitations recited in Claim 4. Bennett further teaches halting the transmission of probe requests from the probe request generator (Column 8 lines 63 – 67, the probe requests are transmitted at predetermined intervals thus there will be a times when said transmission is halted); from the probe request generator, monitoring the channel for additional probe requests transmitted from stations other than the probe request generator (Column 8 lines 55 – 58); and continuing the transmission of probe requests from the probe request generator upon detection of additional probe requests (Column 8 lines 63 – 67, some of the transmission intervals can occur after the detection of additional probe requests).

Regarding Claim 6, Bennett teaches all of the claimed limitations recited in Claim 4. Bennett further teaches the step of storing a time value correlating to each of the probe requests (Column 8 lines 10 – 11).

Regarding Claim 7, Bennett teaches all of the claimed limitations recited in Claim 4. Bennett further teaches the steps of halting the transmission of probe requests from the station (Section 0001, in typical WLANs, the station will halt transmission of probe requests when synchronization occurs.

Regarding Claim 8, Bennett teaches all of the claimed limitations recited in Claim 4. Bennett further teaches the steps of: parsing each of the probe requests (Column 8 lines 10 – 11, the probe requests will be parsed in the probe request storage); storing a medium access control address associated with each of the probe requests (Column 8

lines 10 – 11, the probe message storage will store the probe request message which comprises the MAC address associated with said probe request message); and identifying the successive probe request transmissions from a particular station with the medium access control address (Column 8 lines 10 – 11, the probe message storage will store the probe request message which comprises the MAC address associated with said probe request message, the MAC address identifies the particular station transmitting the probe requests).

Regarding Claim 9, Bennett teaches all of the claimed limitations recited in Claim 4. Bennett further teaches the steps of: from the probe request generator, monitoring the channel for probe requests being transmitted by a second station (Column 8 lines 55 – 58, a plurality of stations can transmit probe requests to the access point (106)); determining a second time period between successive probe request transmissions from the second station (Column 8 lines 55 – 58, in order to determine when to send a probe request there will be a determination of a time period between successive probe requests during the monitoring period); and from the probe request generator, transmitting a second series of probe requests having the second determined time period between successive probe request transmissions (Column 8 lines 63 – 67); wherein the second series of probe requests signal the access point to transmit probe responses which are detectable by the second station (Column 8 line 67, Column 9 lines 1 – 2).

Regarding Claim 10, Bennett teaches a method for providing RF signal quality information comprising the steps of: from a probe request generator, monitoring a

channel for probe responses being transmitted by an access point (Column 8 lines 55 – 58, monitoring the access point comprises monitoring the probe requests and probe responses); determining a time period between successive probe response transmissions (Column 8 lines 55 – 58, in order to determine when to send a probe request there will be a determination of a time period between successive probe responses during the monitoring period); and from the probe request generator, transmitting a plurality of probe requests having the determined time period between successive probe response transmissions (Column 8 lines 63 – 67); wherein the probe requests transmitted from the probe request generator signal an access point to transmit probe responses which are detectable by a station (Column 8 line 67, Column 9 lines 1 – 2).

Regarding Claim 11, Bennett teaches all of the claimed limitations recited in Claim 10. Bennett further teaches the steps of: halting the transmission of probe requests from the probe request generator (Column 8 lines 63 – 67, the probe requests are transmitted at predetermined intervals thus there will be a times when said transmission is halted); from the probe request generator, monitoring the channel for additional probe responses (Column 8 lines 55 – 58); and continuing the transmission of probe requests from the probe request generator upon detection of additional probe responses (Column 8 lines 63 – 67, some of the transmission intervals can occur after the detection of additional probe responses).

Regarding Claim 12, Bennett teaches all of the claimed limitations recited in Claim 10. Bennett further teaches the step of storing a time value correlating to each of the probe responses (Column 8 line 10).

Regarding Claim 13, Bennett teaches a device for generating probe requests comprising: a probe request processor which receives probe requests generated by a station and determines a time period between successive probe requests that are received from the station (Column 8 lines 55 – 58, in order to determine when to send a probe request there will be a determination of a time period between successive probe requests during the monitoring period); a probe request timing database which stores time stamps associated with the probe requests (Column 8 lines 10 – 11); and a probe request scheduler which schedules probe request transmissions at intervals correlating to the determined time period between the received probe requests (Column 8 lines 63 – 67); wherein the probe request transmissions signal an access point to transmit probe responses which are detectable by the station (Column 8 line 67, Column 9 lines 1 – 2).

Regarding Claim 14, Bennett teaches all of the claimed limitations recited in Claim 13. Bennett further teaches at least one probe request timer, said probe request timer operatively communicating with said probe request schedule and timing the probe request transmissions (Column 8 lines 63 – 67).

Regarding Claim 15, Bennett teaches all of the claimed limitations recited in Claim 13. Bennett further teaches a clock, said clock operatively communicating with said probe request processor to provide a current time value for each of the received

probe requests (Column 8 lines 63 – 67, the probe requests will have time stamps thus there will be a clock such that said time stamp can be created).

Regarding Claim 16, Bennett teaches all of the claimed limitations recited in Claim 13. Bennett further teaches a radio for transmitting and receiving RF signals containing probe requests (Figure 3, Column 7 lines 25 – 34); a baseband processor operatively coupled to said radio (Figure 3, Column 7 lines 25 – 29, the signal will be demodulated to baseband so that the data can be extracted); and a medium access controller operatively coupled to said baseband processor (Column 3 lines 38 – 40, typical access points in WLANs comprise MAC controllers).

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond S. Dean whose telephone number is 571-272-7877. The examiner can normally be reached on Monday-Friday 6:00-2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Raymond S. Dean
May 31, 2006

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SUPERVISORY PATENT EXAMINER
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